AMENDMENT TO THE CLAIMS:

Please amend paragraph **[0085]** on page 23 to correct the misspelling of trails, as follows:

Thirteen male Wistar rats (250-300 g) were implanted stereotaxically with stainless steel guide cannulae in the right and left lateral ventricles (AP, -0.80 mm; Marc Levoy, 1.5 mm; DV, 3.6 mm) [65]. On day 1, one week after surgery, animals were subjected to a 2-min swimming training session. A water maze training session was then performed on days 2 and 3, which measured the ability of the animals to find a submerged platform to escape from the water. Two ~~trails~~ **trials** were given to each animal for each session. The escape latency and distance to find the platform were monitored as described above. Ten minutes after the second trial on day 2, an intracerebroventricular administration of drug or vehicle was performed in both lateral ventricles by introducing stainless steel injection cannulae into the implanted guide cannulate. Each injection cannula was connected to a 25-μl Hamilton syringe fastened onto a pump through polyethylene tubing filled with distilled water. Infusions were performed at a rate of 2 μl/min for 1 min in each side. Six animals received 0.94 pmol of FGF-18 (PeproTech Inc., Rocky Hill, NJ) and the other seven received a control injection of vehicle (saline). Results are summarized in Table 1.

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A method of enhancing **memory, attentive cognition or** learning in ~~an individual~~ **a subject in need thereof, comprising the step of** administering ~~an effective amount of~~ Fibroblast Growth Factor 18 (FGF-18) **to said subject in an amount effective to increase FGF-18 levels in the subject's hippocampus, thereby enhancing memory, attentive cognition or learning in said individual**.

2. (Cancelled)

3. (Currently Amended) A method of treating impaired cognitive performance **in a subject in need thereof**, comprising the step of administering to **said subject** a therapeutically effective amount of Fibroblast Growth Factor-**18, thereby treating impaired cognitive performance in said subject**.

4. (Cancelled)

5. (Withdrawn) The method of claim 3, wherein the condition is a learning deficit.

6. (Withdrawn) The method of claim 3, wherein the condition is attention deficit.

7. (Withdrawn) The method of claim 3, wherein the condition is epilepsy.

8. (Withdrawn) The method of claim 3, wherein the condition is schizophrenia.

9. (Withdrawn) The method of claim 3, wherein the condition is Alzheimer's disease.

10. (Withdrawn) The method of claim 3, wherein the condition is an amnesiac syndrome.

11. (Withdrawn) A method for determining the susceptibility of a subject to a condition selected from the group consisting of: impaired cognitive performance, learning deficit, cognition deficit, attention deficit, epilepsy, schizophrenia, Alzheimer's disease and an amnesiac syndrome, wherein the method comprises the steps of:

(a) removing from the central nervous system of the subject a sample comprising Fibroblast Growth Factor-18 mRNA, and

(b) quantitating the Fibroblast Growth Factor-18 mRNA in said sample;

wherein the level of said Fibroblast Growth Factor-18 mRNA is indicative of said subject's susceptibility to said condition.

12. (Withdrawn) The method of claim 11, wherein the sample is obtained from the hippocampus.

13. (Withdrawn) A method for determining the pharmacological effect of a compound on the level of FGF-18 gene expression, comprising the steps of:

(a) growing one or more cultures of neural cells;
(b) measuring the level of FGF-18 gene expression in the cultured neural cells;
(c) contacting the compound with at least one of the cultures of neural cells; and
(d) measuring the level of FGF-18 gene expression in the cultured neural cells that have been contacted with the compound;

wherein a difference in the level of FGF-18 gene expression that correlates with exposure of the neural cells to the compound is indicative of a pharmacological effect of said compound.

14. (Withdrawn) A method for identifying memory-related proteins, comprising the steps of

(a) providing naïve, swimming control, and water-maze trained animals;
(b) extracting mRNA from the hippocampus of the naïve, control and trained animals;
(c) determining differential gene expression levels by quantitating and comparing mRNA levels in naïve, control and trained animals so as to identify "memory related genes"; and
(d) quantitating protein levels reflecting memory related genes for both control and target groups.

15. (Withdrawn) The method of claim 14, further comprising the step of validating the differentially expressed genes quantified in step (d) by quantitative RT-PCR.

16. (Withdrawn) The method of claim 15, wherein the quantitation of mRNA is carried out by a method selected from the group consisting of: Northern blotting, nuclease protection assays, array hybridization, RT-PCR, and hybridization with labeled oligonucleotide probes.

17. (Withdrawn) The method of claim 16, wherein the quantitation of mRNA is carried out by array hybridization.

18. (Cancelled)

19. (Currently Amended) The method of claim **1**, wherein the **subject** suffers from impaired cognitive performance.

20. (Currently Amended) The method of claim **1**, wherein the composition is administered in an amount effective to increase **a brain** FGF-18 **level in said subject**.

21. (Currently Amended) The method of claim **1**, wherein the composition is administered in an amount effective to increase **a hippocampal** FGF-18 **level in said subject**.